MISCELLANEOUS NOTES

1991), gets its drinking water from the Kho river. Protection of the corridor forests, which form the catchment area of these streams, therefore becomes extremely crucial. Massive and sustained conservation awareness programmes in the villages and Kotdwar township about the importance of these forests as watershed, and the need to protect them from fire, would certainly help in ultimately reducing pressures on the forests. Massive planting of local evergreen species such as *Mangifera indica*, *Putranjiva roxburghii* and *Syzygium cuminii* around springs in this corridor, involving local people, particularly school children, is likely to stimulate ecological awareness.

2. Protection: Special efforts should be made to protect the forests (from the iron bridge across Kho river near Kotdwar to Amsod village, a distance of about 5 km) from development and garbage as a result of picnicking at the river. The perennial and scenic, small river can attract encroachers, and the abandoned buildings, past the iron bridge near a small Lord Shiva temple, and in the Department of Water Supply compound, about a kilometre from the iron bridge, might be

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misused. A restaurant, which is showing signs of expansion, has already come up to the right of the road, just a kilometre short of Amsod. Since the Kho river is used by elephants and other wildlife, it may be necessary to convert the two staff quarters in the abandoned nursery into an anti-poaching camp.

3. Resettlement: On a priority basis, the *gujjar* and *bhotia deras* from Laldhang and Kotdwar ranges should be resettled in the southern periphery of Chiriyapur Range of Haridwar FD.

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7. SIGHTING OF A RARE DARK MORPH OF GREY FRANCOLIN *FRANCOLINUS PONDICERIANUS* GMELIN 1789 NEAR SURENDRANAGAR, GUJARAT, INDIA

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On August 16, 2010, around 17:30 hrs, while in the wilderness around Surendranagar city of Gujarat, on a

photographic trip I sighted a pair of dark birds moving in a bush in the wild areas. At first I mistook it for a black francolin but on literature survey, l identified them to be Grey Francolins *Francolinus pondicerianus* (Grimmett *et al.* 1999: POCKET GUIDE TO THE BIRDS OF THE INDIAN SUBCONTINENT. The Helm Guide Series, London. 384 pp.). These Grey Francolins *Francolinus pondicerianus* had an unusually dark plumage due to presence of excessive melanin.

8. RECENT OCCURRENCE OF THE BROWN-HEADED BARBET *MEGALAIMA ZEYLANICA* GMELIN 1788 AND OTHER DRY COUNTRY SPECIES IN PERIYAR TIGER RESERVE, KERALA, SOUTHERN INDIA – ARE THESE RELATED TO ECOLOGICAL CHANGE?

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Periyar Tiger Reserve, a major part of the Cardamom Hill Reserve, is located on the wet zone of the Western Ghats in Kerala, southern India. The area harbours a rich bird fauna which has been studied periodically since the 1800s (Elwes 1870; Ali 1935-37; Berlioz 1940; Nichols 1944-45; Nair *et al*.1985; Robertson and Jackson 1992; Srivastava *et al*.1993; Santharam 1996; Veeramani *et al*. 2005; Elamon 2006; Sugathan 2008). The Brown-headed Barbet *Megalaima zeylanica*, which is endemic to the Indian subcontinent (Rasmussen and Anderton 2005). has not been previously reported from the Reserve. This note reports the occurrence of the Brown-headed Barbet and other dry country species sighted at about 700 m elevation in the Periyar Tiger Reserve in recent years.

Ali (1935-37), Robertson and Jackson (1992), Nair *et al.* (1985) and Srivastava *et al.* (1993) who have documented the avifauna of Periyar, and Yahya (1988) who studied the biology of barbets in the Reserve from 1977-1980 recorded only two species of barbets, namely White-cheeked Barbet *Megalaima viridis* and Crimson-fronted Barbet *Megalaima rubricapilla.* Prasad (1990) who studied the avian abundance in Idukky Wildlife Sanctuary, around the Hydroelectric area, also on the Western Ghats about 50 km north of Periyar, recorded same two species, and a third species, the Crimson-breasted Barbet *M. haemocephala.* Nichols (1944-1945) also did not record the Brown-headed Barbet in Periyar.

While looking for birds on the Anchuruly road in Periyar on February 21, 2007, we came across two Brownheaded Barbets on a fig tree near the forest edge, behind the Anavachal guest house at about 700 m elevation. The vegetation is moist deciduous forest with teak as the dominant tree species and frequently disturbed by tourists, firewood collectors and cattle grazing. The unmistakable call of the bird attracted our attention. VJZ who worked as a research officer at Periyar from 1991-97, lived at the Anavachal guest house from May to December 1991 and frequently visited the area while working in Periyar, had never previously seen the species in this area or anywhere in the tiger reserve.

The Brown-headed Barbet occurs mostly in the rain shadow region of the Western Ghats in Tamil Nadu and Karnataka, in the deciduous biotope, which include the areas of these states bordering Kerala (VJZ pers.obs.). Little information is available on the status and distribution of this species in Kerala. During the Travancore-Cochin ornithological survey, Ali (1935-37, 1984) noted the bird at Thattekad and collected a specimen from Aramboli near the Tamil Nadu border. However, Ali (1984) did not mention Thattekad as a locality for this bird and wrote that the species was local and apparently confined to the deciduous low country in southern Kerala only. According to Whistler and Kinnear (1935) two races of the Brown-headed Barbet occurred in Kerala, M.z. zevlanica in the south and M.z. inornata in the north, as evidenced by specimens in the British Museum. But Abdulali (1971) did not admit M.z. zeylanica in the Indian mainland. A recently published book, BIRDS OF KERALA (Ali 1999) recorded two races of the Brownheaded Barbet in Kerala. There are recent sight records of the Brown-headed Barbet at Parambikulam and Chinnar Wildlife sanctuaries, Malampuzha, Elivalmala and Palakkad gap, all near the Tamil Nadu border (Jafer Palot pers. comm.). The species is fairly common in Tamil Nadu, adjoining Periyar in the east, at lower elevations. There is a specimen of the species in the Smithsonian Museum collected at Vannathiparai (450 m) in Tamil Nadu, about 12 km away from the site of our observation.

The occurrence of the Brown-headed Barbet within Periyar near Anavachal, which is about 2 km away from the Tamil Nadu border, at about 700 m, raises interesting questions. The species seems to have moved from a dry habitat at lower elevation to a higher elevation where the habitat has become drier and thus more suitable for the species. This illustrates encroachment of a dry habitat, lower elevation species to a higher elevation. The extension in range may be related to the changes in vegetation structure and perhaps consequent changes in weather in the peripheral areas of the Reserve in the Thekkady range.

It is worth mentioning that three other dry country species, the Eurasian Collard Dove *Streptopelia decaocto*,